AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: Q84937

Application No.: 10/516,516

**AMENDMENTS TO THE CLAIMS** 

This listing of claims will replace all prior versions and listings of claims in the

application:

**LISTING OF CLAIMS:** 

Claims 1-9 (canceled).

10. (currently amended): A screw for use in an extruder comprising a cylinder for carrying a

rubber material supplied from a hopper port at an upstream end of the cylinder by the screw,

molding it into a predetermined sectional form and extruding it from a nozzle attached to a

downstream end of the cylinder,

wherein a height of a flight portion of that part of the screw located below the hopper port

is lower than a height of a flight portion located on a downstream side, said height at said part

varies continuously in a peripheral direction over a predetermined rotational angle of the screw

and the predetermined rotational angle is an angle beginning 90° before a position where the

height of the flight is lowest and ending 90° after the position where the height of the flight is

lowest, and

wherein the diameter of the screw located below the hopper port is between 2% and 6 %

smaller than the diameter of the screw at the downstream side owing to the reduced height of the

flight at the part located below the hopper.

Claim 11

(canceled).

2

AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: Q84937

Application No.: 10/516,516

12. (previously presented): The screw according to claim 10, wherein a number of threads

on an upstream side of the screw is made smaller than a number of threads on the downstream

side.

13. (previously presented): The screw for use in an extruder according to claim 10, wherein

an interval of the threads on an upstream side is made wider than an interval of the threads on the

downstream side.

14. (previously presented): The screw for use in an extruder according to claim 10, wherein

diameter of the thread on an upstream side of the screw are made larger than diameters of the

threads on a downstream side.

Claim 15 (canceled).

16. (withdrawn): A process for producing a screw for use in an extruder for carrying a

rubber material supplied from a hopper port at the rear of the cylinder of the extruder by the

screw, molding it into a predetermined sectional form and extruding it from a nozzle attached to

the end of the cylinder, the process comprising cutting away a peripheral portion of a flight

portion located below the hopper port of an existing screw at a predetermined angle so that the

height of the flight portion continuously changes in a peripheral direction to produce a screw

having the flight portion located below the hopper port lower than the height of the flight portion

on a downstream side.

3

AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: Q84937

Application No.: 10/516,516

17. (withdrawn): The process for producing a screw for extruders according to claim 16,

wherein the amount of the peripheral portion cut away is 2 to 6 % of the diameter of the screw.

18. (withdrawn): A process for producing a tire rubber member by using the screw according

to claim 10.

19. (withdrawn): A tire rubber member manufactured by using the screw according to claim

10 and having a gauge fluctuation of 0.15 mm or less.

20. (previously presented): The screw according to claim 10, wherein the cylinder has a

consistent inner diameter from the hopper port to a last thread of the screw at the downstream

end.

4